

Mecca for the precision medicine industry in Korea!

Written by the Data Industry Division, Gangwon-do



As the healthcare industry emerges as a leading sector in the wake of the Fourth Industrial Revolution, we endeavor to nurture precision medicine as a driving force for regional prosperity. With the combined efforts of 10 healthcare institutes—Samsung Medical Center in Seoul and large-scale hospitals in the province, we are geared up for a big data platform for precision medicine.

Bird's-eye view of K-Cloud Park



Creation of K-Cloud Park, a sustainable data convergence complex

Amidst the Fourth Industrial Revolution, where big data affects the world economy, we strive for 'K-Cloud Park,' a hydrothermal energy-based complex for cloud computing, which uses cold water from the Soyanggang River in Chuncheon. We therefore lay the groundwork for the global data industry, attracting data centers, precision medicine companies, small and medium-sized enterprises, public agencies, and financial corporations. Among all of them, the field of precision medicine big data will be the core of the K-Cloud Park scheme.

Project outline of K-Cloud Park

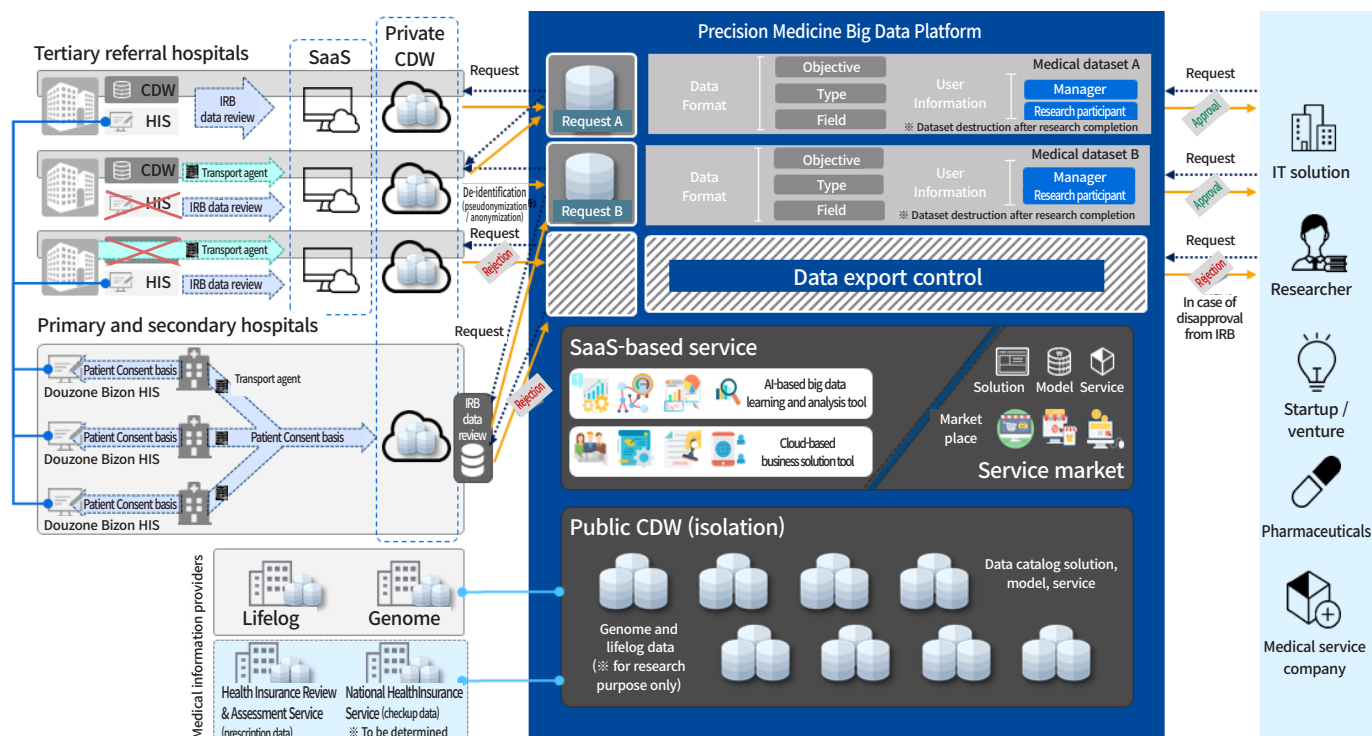
- **Period of project** : 2020 ~ 2025(6 years)
- **Organizer** : K-Water, Chuncheon-si, Gangwon-do
- **Budget** : 387.2 billion won (129.8 billion won from the central government; 35.7 billion won from local governments; 221.7 billion won from private sectors)
- **Key areas**
 - (Innovative startup) offering favorable spaces and conditions for successful startups
 - (Corporate growth) giving each tenant appropriate spaces according to their sizes
 - (Global convergence) offering spaces and supporting global networks and industry-university research collaborations

Promoting a precision medicine big data platform

Medical data is fragmented and non-standardized, and there is no well-organized platform for collection, storage, processing, and analysis; so, an effective use of data is unavailable.

In the present situation, one-off projects are only implemented. Since 2020, we have built a healthcare data management platform to pioneer the evolving ecosystem for precision medicine. We believe we will soon be able to provide integrated and standardized data.

 Flowchart for Gangwon's Precision Medicine Big Data Platform





Provide cooperative systems for the purpose of the provision and utilization of 9.5 billion medical data

Based upon the experience of Samsung Medical center’s know-how on the operation of clinical data warehouse(CDW)— a database that consolidates data from a variety of clinical sources, Douzone Bizon, an ICT leader in Korea, spurs platform development. Not only that, a total of 19 entities which includes 10 hospitals, 1 genomics company, 1 lifelog service provider, 1 law firm, 1 pharmaceutical company, and 2 medical solution providers, are involved in solidifying partnerships with precision medicine industries such as data standardization, platform creation, legal reviews, new drug and AI clinical decision support system (CDSS) development, and human resources training.

Addressing chronic local problems through the precision medicine industry

In Gangwon, manufacturing has been restricted for the protection of surface water sources—e.g. the Soyanggang River. Due to regional economic backwardness, medical organizations and relevant infrastructures are inadequate. It is unfortunately true that our citizens are unable to get qualified health services.

Making the most of our Precision Medicine Big Data Platform, we aspire to construct green data centers, stimulate the local economy—by inviting 200 AI businesses and creating 3,700 jobs, and deliver more personalized patient experiences to those who have been neglected.